

# ABSTRACT OF THE DISCLOSURE

A BLAST analysis unit calculates the homologies between data included in an analysis target data group and the first data group, respectively, and calculates  
5 the number of data exhibiting homologies (orthologous gene count) as a first homology value  $\underline{x}$  by using the calculated values. This unit sets  $n_A$  thresholds  $E$  and calculates a first homology value  $x_i$  for each threshold  $E_i$ , and calculates the homologies between data included  
10 in the analysis target data group and the second data group, respectively. The unit calculates the number of data exhibiting homologies (orthologous gene count) as a second homology value  $\underline{y}$ . The unit sets  $n_B$  thresholds  $E$  and calculates a second homology value  $y_i$  for each  
15 threshold  $E_i$ . A t-test unit determines to which one of the first and second data groups the analysis target data group is similar.